In the Claims:

1. (Original) An uninterruptible power supply apparatus, comprising:

a first bidirectional power converter circuit having first and second ports;

a second bidirectional power converter circuit having first and second ports;

a DC link coupling the second port of the first bidirectional power converter circuit to the first port of the second bidirectional power converter circuit;

a first load port coupled to the second port of the second bidirectional power converter circuit;

a second load port coupled to the first port of the first bidirectional power converter circuit; and

a control circuit configured to control the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate and/or condition AC power at each of the first and second load ports.

2. (Original) An apparatus according to Claim 1, further comprising an auxiliary DC power source coupled to the DC link and operative to supply power thereto, and wherein the control circuit is configured to control the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate AC power at each of the first and second load ports from the auxiliary DC power source.

3. (Original) An apparatus according to Claim 1, wherein the control circuit is operative to provide at least two of the following modes of operation:

a first mode wherein the first bidirectional power converter circuit provides power conditioning at the second load port while the second bidirectional power converter circuit provides AC power at the first load port;

a second mode wherein the first bidirectional power converter circuit generates AC power at the second load port from the auxiliary DC power source

while the second bidirectional power converter circuit generates AC power at the first load port from the auxiliary DC power source;

a third mode wherein the second bidirectional power converter circuit generates AC power at the first load port from the auxiliary DC power source while the first bidirectional power converter circuit is disabled;

a fourth mode wherein the second bidirectional power converter circuit generates AC power at the second load port from the auxiliary DC power source while the first bidirectional power converter circuit is disabled;

a fifth mode wherein the second bidirectional power converter circuit generates AC power at the first and second load ports from the auxiliary DC power source while the first bidirectional power converter circuit is disabled;

a sixth mode wherein the first bidirectional AC power converter circuit generates AC power at the second load port from the auxiliary DC power source while the second bidirectional power converter circuit is disabled;

a seventh mode wherein the first bidirectional AC power converter circuit generates AC power at the first and second load ports from the auxiliary DC power source;

an eighth mode wherein the first and second bidirectional AC power converter circuits concurrently generate power at the first load port from the auxiliary DC power source; and

a ninth mode wherein the first and second bidirectional AC power converter circuits concurrently generate power at the second load port from the auxiliary DC power source.

4. (Original) An apparatus according to Claim 3, wherein the control circuit is operative to selectively provide each of the first, second, third, fourth, fifth, sixth, seventh, eighth and ninth modes of operation.

5. (Original) An apparatus according to Claim 3, wherein the power conditioning comprises at least one of power factor control and harmonic control.

6. (Original) An apparatus according to Claim 1, wherein the control circuit comprises a first switch operative to couple and decouple the first port of the first bidirectional power converter circuit to and from an AC power source and a second switch operative to couple and decouple the first port of the first bidirectional power converter circuit to and from the second port of the second bidirectional power converter circuit.

7. (Original) An apparatus according to Claim 1:

wherein the DC link comprises first and second DC voltage busses;

wherein the first bidirectional power converter circuit comprises a first half bridge circuit operative to selectively couple a first terminal of the first load port to the first and second DC voltage busses; and

wherein the second bidirectional power converter circuit comprises a second half bridge circuit operative to selectively couple a first terminal of the second load port to the first and second DC voltage busses.

8. (Currently Amended) An apparatus according to Claim 7, wherein the first and second half bridge circuits comprise ~~respect~~ respective three-phase half bridge circuits.

9. (Original) An apparatus according to Claim 1, wherein the control circuit is configured to selectively operate the first bidirectional power converter circuit and/or the second bidirectional power converter circuit in a standby or line interactive manner.

10. (Original) An apparatus according to Claim 1, wherein the control circuit is configured to selectively operate the first bidirectional power converter circuit and the second bidirectional power converter circuit to provide on-line uninterruptible power to the first load port.

11. (Original) An apparatus according to Claim 1, wherein the control circuit is configured to selectively operate the first bidirectional power converter circuit and/or the second bidirectional power converter circuit to provide power conditioning at the first load port and/or the second load port.

12. (Original) An apparatus according to Claim 1, wherein the control circuit is operative to bypass the first and second bidirectional power converter circuits to provide AC power at the first load port.

13. (Original) A method of operating an uninterruptible power supply apparatus including a first bidirectional power converter circuit having first and second ports, a second bidirectional power converter circuit having first and second ports, a DC link coupling the second port of the first bidirectional power converter circuit to the first port of the second bidirectional power converter circuit, an auxiliary DC power source coupled to the DC link and operative to supply power thereto, a first load port coupled to the second port of the second bidirectional power converter circuit and a second load port coupled to the first port of the first bidirectional power converter circuit, the method comprising:

controlling the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate and/or condition AC power at each of the first and second load ports.

14. (Original) A method according to Claim 13, wherein the uninterruptible power supply apparatus comprises an auxiliary DC power source coupled to the DC link and operative to supply power thereto, and wherein controlling the first and second bidirectional power converter circuits comprises controlling the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits is selectively operable to generate AC power at each of the first and second load ports from the auxiliary DC power source.

15. (Original) A method according to Claim 13, wherein the method comprises at least two of the following steps (a)-(i):

(a) operating the first bidirectional power converter circuit to provide power conditioning at the second load port while operating the second bidirectional power converter circuit to provide AC power at the first load port;

(b) operating the first bidirectional power converter circuit to generate AC power at the second load port from the auxiliary DC power source while operating the second bidirectional power converter circuit to generate AC power at the first load port from the auxiliary DC power source;

(c) operating the second bidirectional power converter circuit to generate AC power at the first load port from the auxiliary DC power source while the first bidirectional power converter circuit is disabled;

(d) operating the second bidirectional power converter circuit to generate AC power at the second load port from the auxiliary DC power source while the first bidirectional power converter circuit is disabled;

(e) operating the second bidirectional power converter circuit to concurrently generate AC power at the first and second load ports from the auxiliary DC power source;

(f) operating the first bidirectional AC power converter circuit to generate AC power at the second load port from the auxiliary DC power source while the second bidirectional power converter circuit is disabled;

(g) operating the first bidirectional AC power converter circuit to concurrently generate AC power at the first and second load ports from the auxiliary DC power source.

(h) operating the first and second bidirectional AC power converter circuits concurrently to generate power at the first load port from the auxiliary DC power source; and

(i) operating the first and second bidirectional AC power converter circuits concurrently to generate power at the second load port from the auxiliary DC power source.

16. (Original) A method according to Claim 15, including each of the steps (a) - (i).

17. (Original) A method according to Claim 15, wherein the power conditioning comprises at least one of power factor control and harmonic control.

18. (Original) A method according to Claim 13:

wherein the DC link comprises first and second DC voltage busses;

wherein the first bidirectional power converter circuit comprises a first half bridge circuit operative to selectively couple a first terminal of the first load port to the first and second DC voltage busses; and

wherein the second bidirectional power converter circuit comprises a second half bridge circuit operative to selectively couple a first terminal of the second load port to the first and second DC voltage busses.

19. (Original) A method according to Claim 18, wherein the first and second half bridge circuits comprise respect three-phase active bridge circuits.

20. (Original) A method according to Claim 13, wherein the power conditioning comprises at least one of power factor control and harmonic control.

21. (Original) A method according to Claim 13, wherein controlling the first and second bidirectional power converter circuits comprises operating the first bidirectional power converter circuit and/or the second bidirectional power converter circuit in a standby or line interactive manner.

22. (Original) A method according to Claim 21, wherein controlling the first and second bidirectional power converter circuits comprises operating the first bidirectional power converter circuit and the second bidirectional power converter circuit to provide on-line uninterruptible power to the first load port.

23. (Original) A method according to Claim 13, further comprising bypassing the first and second bidirectional power converter circuits to provide AC power at the first load port.

24. (Original) A method according to Claim 13, further comprising operating the first bidirectional power converter circuit and/or the second bidirectional power converter circuit to provide power conditioning at the first load port and/or the second load port.